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April 26, 2016

GO2-16-068

10 CFR 50.55a

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Subject: **COLUMBIA GENERATING STATION, DOCKET NO. 50-397;
RE-SUBMITTAL OF FOURTH TEN-YEAR INTERVAL INSERVICE
INSPECTION (ISI) PROGRAM RELIEF REQUEST 4ISI-07**

Reference: (1) Letter dated March 30, 2016, A.L. Javorik (Energy Northwest) to NRC,
"Fourth Ten-Year Interval Inservice Inspection (ISI) Program Relief
Request 4ISI-07"

Dear Sir or Madam:

Via Reference 1 Energy Northwest submitted relief request 4ISI-07 for approval pursuant to 10 CFR 50.55a(g)(5)(iii). After discussions with the NRC on April 7, 2016 and April 12, 2016, Energy Northwest withdraws the relief request submitted under Reference 1.

Pursuant to 10 CFR 50.55a(z)(2), Energy Northwest hereby requests NRC approval of relief request 4ISI-07 for the fourth ten-year inservice inspection (ISI) program interval at Columbia Generating Station ending December 12, 2025. Energy Northwest has determined that compliance with certain inspection requirements of American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, would result in unnecessary hardship or unusual difficulty without a compensating increase in the level of quality and safety. The details of the 10 CFR 50.55a request are enclosed as Attachment 1.

Energy Northwest requests approval one year from the date of this request.

There are no new commitments made in this submittal. If you have any questions or require additional information, please contact Lisa Williams at 509-377-8148.

Executed this 25th day of April, 2016

Respectfully,

A handwritten signature in black ink, appearing to read "A. L. Javorik". The signature is fluid and cursive, with a large, stylized "J" at the end.

A. L. Javorik
Vice President, Engineering

Attachment: 10 CFR 50.55a Request Number 4ISI-07

cc: NRC Region IV Administrator
NRC NRR Project Manager
NRC Sr. Resident Inspector - 988C
CD Sonoda - BPA1399 (email)
WA Horin - Winston & Strawn

10 CFR 50.55a Request Number 4ISI-07

Standby Liquid Control System (SLC) piping

Proposed Alternative
In Accordance with 10 CFR 50.55a(z)(2)

--Hardship or Unusual Difficulty
without Compensating Increase in Level of Quality or Safety--

1. ASME Code Component(s) Affected

Code Class: 2

Reference: American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, IWA-5213(a)(2)

Examination
Category: C-H

Item Number: C7.10

Components affected:

Standby Liquid Control (SLC) system piping from SLC pumps SLC-P-1A and SLC-P-1B to valves SLC-V-3A and SLC-V-3B and to relief valves SLC-RV-29A and SLC-RV-29B. The SLC system consists of two loops, A and B. The scope of this request for each loop consists of approximately 5-1/2 feet of 1-inch and 1-1/2-inch schedule 80S SA 312 TP304 pipe, one 1-inch relief valve, one 1-1/2-inch check valve, and one 1-1/2-inch gate valve. All components are not insulated. Further details are shown on the attached drawings.

2. Applicable Code Edition and Addenda

The applicable ASME Section XI Code Edition and Addenda for Columbia Generating Station's (Columbia) fourth ten-year ISI interval is the 2007 Edition through the 2008 Addenda.

3. Applicable Code Requirement

The applicable ASME Boiler and Pressure Vessel Code, Section XI, requirement is contained in Article IWA-5000, "System Pressure Tests," Sub-Article IWA-5200, "System Test Requirement," IWA-5213, "Test Condition Holding Time," (a)(2), "For Class 2 (IWC-2500-1, Examination Category C-H) and Class 3 (IWD-2500-1, Examination Category D-B) components not required to operate during normal plant operation, a 10 min holding time is required after attaining test pressure."

The ASME Section XI hydrostatic pressure test of the SLC pump discharge piping is performed at Columbia by two methods. The portion of the system downstream of valves SLC-V-3A and SLC-V-3B uses a hydro pump to pressurize the system. After a ten minute hold time the VT-2 visual examination is performed. Gate valves SLC-V-3A and SLC-V-3B are used to isolate the low pressure portion of the system upstream of the pumps (design pressure 150 psig) from the higher downstream pressure (design pressure 1400 psig). The remaining portion of the discharge piping from the pumps to valves SLC-V-3A and SLC-V-3B is pressurized using the SLC pumps SLC-P-1A and SLC-P-1B since no vent or drain lines or test connections are available to connect the hydro pump.

4. Reason for Request

This 10 CFR 50.55a relief request is to eliminate the 10-minute hold time requirement of IWA-5213 for the small segment of the SLC system that cannot be pressurized using the hydro pump. Use of a hydro pump would require disconnecting pumps SLC-P-1A and SLC-P-1B and installing blind flanges with fittings. In lieu of this major maintenance activity, a system modification would be required to install a test connection(s) on the affected portion of the system.

The code requirement for a 10-minute hold time prior to performing the VT-2 visual examination is considered a hardship or unusual difficulty without a compensating increase in the level of quality and safety because the hold time increases the potential for damage to relief valves SLC-RV-29A and SLC-RV-29B.

Since using a hydro pump requires either major maintenance or system modification, Columbia uses the positive displacement pumps, SLC-P-1A and SLC-P-1B, during their operability test to pressurize the identified sections of pipe for performance of the VT-2 examination. There is a small volume of fluid circulated through 1-inch, 1-1/2-inch, 3-inch, and 4-inch nominal pipe size (NPS) pipe and a 210 gallon capacity test tank during the operability test. Since this small volume rapidly heats up during the operability test, the pumps are run for approximately 3 to 5 minutes. This prevents erratic pump discharge and chattering of relief valves SLC-RV-29A and SLC-RV-29B. Chattering of these relief valves has caused damage to the sealing surfaces in the past. Investigation of these relief valve failures resulted in the pump operability procedure being changed in 1996 to limit the pump run time.

Compliance with the 10-minute hold time requirement produces a higher potential of the relief valves being damaged so that they will not meet their functional requirements (set point) requiring repair or replacement of the valves. Columbia's experience with SLC-RV-29A and SLC-RV-29B set point failures is documented in References 1 and 2.

5. Proposed Alternative and Basis for Use

Pursuant to 10 CFR 50.55a(z)(2), relief is requested to eliminate the 10-minute hold time requirement of IWA-5213 for the small segments of the SLC system that cannot be pressurized using the hydro pump.

The proposed alternative to the 10-minute hold time required by IWA-5213(a)(2) is to perform the VT-2 examination when SLC-P-1A and SLC-P-1B is started for its respective pump operability test. The pump operability test runs each pump for approximately 3-5 minutes. The VT-2 examiner will continually observe each section of piping during the entire time the pump is operating for the pump operability test. The system pressure rapidly increases to the 1240 psig operating pressure when the pump starts. The high VT-2 test pressure would rapidly reveal any through wall discontinuities in the uninsulated piping, thus providing reasonable assurance of structural integrity without implementing the 10-minute hold time required by IWA-5213(a)(2).

6. Duration of Proposed Alternative

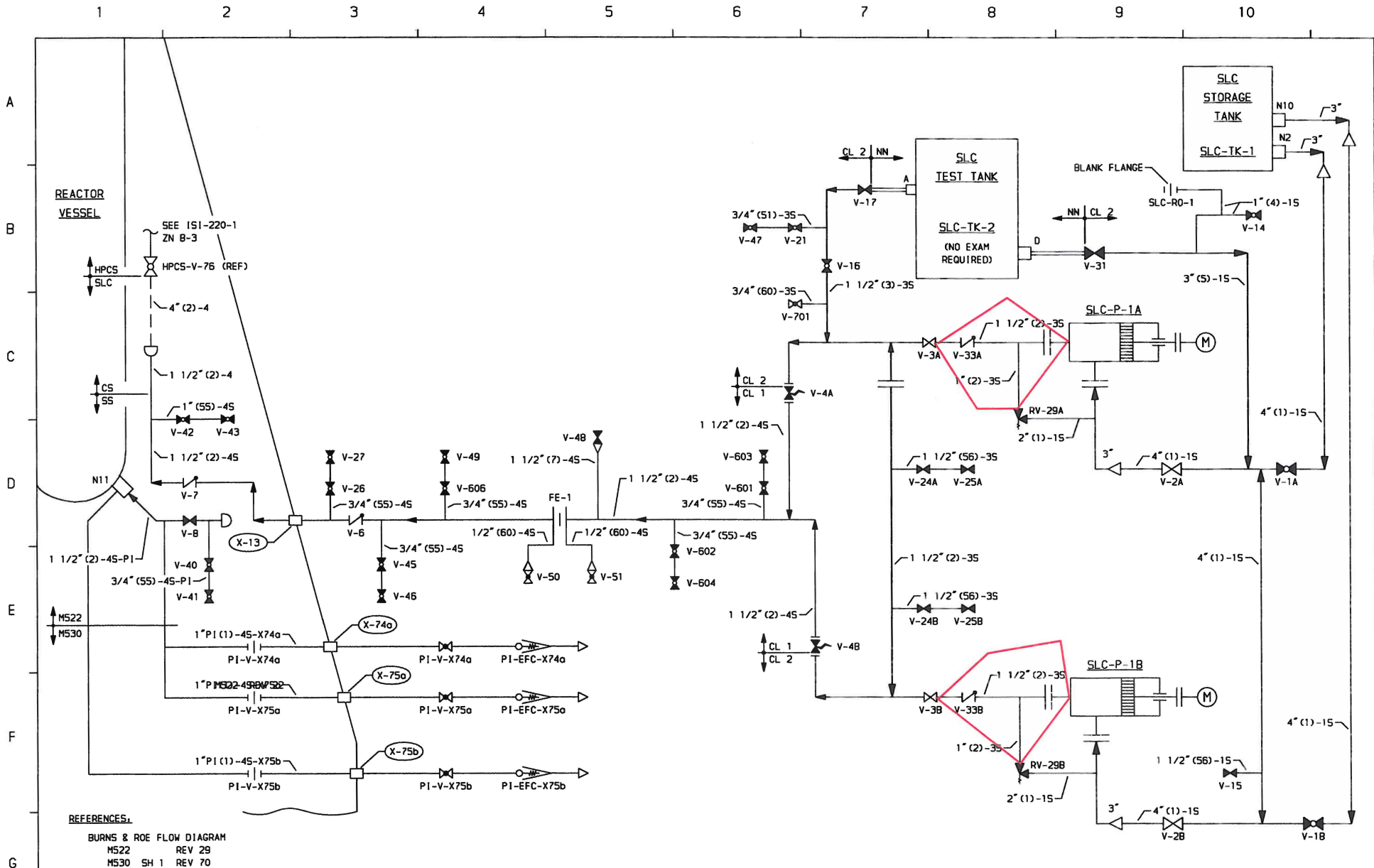
The duration of this request is for the fourth ten-year inservice inspection interval ending December 12, 2025.

7. Precedents

There are two precedents for this request approved by Nuclear Regulatory Commission (NRC) Safety Evaluations (SEs) for Columbia Generating Station. These are the ISI second and third 10-year interval relief requests 2ISI-29 and 3ISI-05 which were transmitted by References 3 and 4 respectively. While these precedents for relief were approved under 10 CFR 50.55a(g)(5)(iii) as impractical for compliance, the relief was granted for elimination of the 10 minute hold time required by IWA-5213(a)(2) for the same system and section of piping.

8. References

1. Letter, GO2-04-199, D. K. Atkinson (Energy Northwest), to NRC, "Request to Implement 2ISI-29 Addressing ASME Section XI, IWA-5213, Test Condition Holding Times, for the Second Inservice Inspection Interval," dated November 22, 2004
2. Letter, GO2-05-196, W. S. Oxenford (Energy Northwest), to NRC, "Submittal of the Third Ten-Year Interval Inservice Inspection Program Plan and 10 CFR 50.55a Requests 3ISI-01 through 3ISI-07 for Columbia Generating Station," dated December 15, 2005
3. Letter, Robert A Gramm (NRC) to J. V. Parrish (Energy Northwest), "Columbia Generating Station – American Society of Mechanical Engineers (ASME) Inservice Inspection Program Relief Requests 2ISI-29 and 2ISI-30, Subsequent ASME Section XI Edition and Addenda for Pressure Testing (TAC NOS. MC5189, MC5190)," dated May 17, 2005
4. Letter, David Terao (NRC) to J. V. Parrish (Energy Northwest), "Columbia Generating Station – Relief Request No. 3ISI-05 for the Third 10-year Inservice Inspection Interval RE: Hold Time Prior to VT-2 Examination of Standby Liquid Control System (TAC NO. MD1168)," dated March 19, 2007



REFERENCES:

BURNS & ROE FLOW DIAGRAM
 M522 REV 29
 M530 SH 1 REV 70

NOTES

1. REFER TO DRAWING ISI-200 FOR LEGEND.
2. VALVE AND LINE DESIGNATIONS ARE SHOWN WITHOUT THE SYSTEM PREFIX FOR CLARITY.

THIS DRAWING IS INTENDED
 FOR USE IN PRESERVICE
 AND INSERVICE INSPECTIONS
 PROGRAMS ONLY



WASHINGTON PUBLIC POWER
 SUPPLY SYSTEM
 RICHLAND, WASHINGTON 99352

6-8-94	REVISED PER LATEST TOP TIER DRAWINGS.	K-McA	DPR	DW	1	11-8-84	GENERAL UPDATE REDRAWN	K-McA	DPR	TFH	ENGINEER D PORTER
12-4-89	CUT AND CAPPED 1 1/2" SLC(2)-45 AT X-13. CHG CAPPED LINE TO 1 1/2" SLC(2)-45-P1. NEW CONN TO HPCS SYSTEM.	K-McA	DPR	TFH	0	12-22-78	ISSUED FOR USE	K-McA	TFH	DWP	DRAWN K-McANDREW
1-24-85	REVISED FOR ISI	K-McA	DPR	TFH	A	10-18-78	ISSUED FOR INFORMATION ONLY	K-McA	NCH	DWP	
DATE	REVISION	BY	CHKD	APVD	NO	DATE	REVISION	BY	CHKD	APVD	DATE 8-23-78

WNP-2 INSERVICE INSPECTION BOUNDARY DIAGRAM STANDBY LIQUID CONTROL (SLC)
DWG NO: ISI-222
REV 4

GO2-16-068
 Attachment 1
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